

REMARKS

I. Claim Status

Claims 1-39 have been canceled without prejudice herein. Claims 40-49 have been added herein. Those new claims are supported in the original specification and claims and do not add new matter. In particular, support for deleting "H" as a possible choice from R₃ and R₄ is supported in the specification at, for example, Examples 29-33, 42, 43, 46, 47, and 49-51. The new claims are also supported in original claims 1, 13, and 22, for example. Accordingly, no new matter is added herein. In addition, the currently pending claims 40-49 belong to Applicants' elected invention, Group V.

II. Specification

Applicants respectfully point out to the Office that two copies of the original specification can be found on PAIR for this application. The specification closest to the bottom of the "Image File Wrapper" screen dated October 1, 2004, has legible copies of pages 14, 15, 17, 18, 20-22, and 51-54. Those pages are identical to those the Office cannot read in the second copy of the specification on PAIR. Accordingly, Applicants are not providing legible copies herewith because legible copies have already been made of record.

III. 35 U.S.C. § 112 Rejections

Enablement Rejection

The Office rejected claims 1, 2-6, and 9-14 under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the enablement requirement. Office Action

at 2-4. Applicants disagree with this rejection and argue that the presently pending claims are fully enabled.

Applicants respectfully disagree with the Office's contention that "[b]ased on [the data disclosed on pp. 54-58 of the Specification], the instant compound will have therapeutic utility in treating only those disease conditions where alpha-2C receptor antagonists were well known to have therapeutic utility in the prior art before the effective filing date of the instant application." *Id.* at 3. The enablement requirement, which requires that one of ordinary skill in the art be able to make and use the invention based on the disclosure, does not require that an inventor limit his invention to only those uses known and defined in the prior art. That analysis necessarily undermines an invention that recognizes a new problem or new use and enables one of ordinary skill in the art to make and use the invention. That is the case here; the present specification fully enables the present claims.

The Office appears to be arguing that, because the present specification teaches compounds having alpha-2C adrenoceptor specificity, they can only be used for disease conditions known to be linked to those receptors and that the compounds of the present invention cannot be used for disease conditions associated with other alpha-adrenoceptors, e.g., alpha-2A, alpha-2B. *Id.* Applicants respectfully disagree with that reasoning and conclusion because the present specification teaches that the compounds of the present claims are not only selective for the alpha-2C adrenoceptor, i.e., they selectively bind to that receptor over other alpha-adrenoceptors, but also that exemplary compounds of the present invention "are high-affinity ligands **for all the alpha2-receptors**" Specification at 53 (emphasis added). Therefore, the present

disclosure provides a method for determining whether the compounds of the present claims bind to certain receptors without undue experimentation.

Furthermore, Applicants have provided guidance in the specification to link the presently claimed alpha-2C adrenoceptors antagonists with specific disease conditions, contrary to the Office's assertion that "[t]here is no teaching or guidance in the present specification or prior art references provided to show well established utility of alpha-2C receptor antagonists in specific disease conditions." Office Action at 3. In fact, the present specification states that "alpha2C-adrenoceptors . . . appear to play a role in the modulation of specific CNS-mediated behavioural and physiological responses." Specification at 1. Moreover, the present specification incorporates by reference U.S. Patent No. 5,902,807 ("the '807 patent") which discloses alpha2C-receptor antagonists that have found utility in mental disturbances induced by stress. The '807 patent teaches various conditions induced by stress at col 2, lines 34-44. Moreover, that patent provides animal behavioral models that correlate to these conditions to determine whether a given compound will be a successful treatment. In addition, the present specification provides *in vivo* methods that correlate to the utility of the compounds of the present invention for treating conditions associated with alpha2C-adrenoceptors, such as stress-induced mental disorders and disorders associated with sensorimotor gating deficits. See Specification at 51-54 and 57-58. Therefore, in response to the Office's contention that there are no working examples, Applicants respectfully point out that the present specification provides a number of *in vivo* methods enabling one of ordinary skill in the art to use the presently claimed invention.

The present invention also teaches one of ordinary skill in the art to make the compounds of the present claims, see e.g., pp. 19-51. Therefore, not only does the present specification enable the skilled artisan to use the present compounds without undue experimentation, but it also provides synthetic methods to make compounds of the present claims. Because the Office has failed to establish why the working examples and specification as a whole do not enable one of ordinary skill in the art to practice the present invention, Applicants respectfully request that this rejection be withdrawn.

Indefiniteness Rejection

The Office rejected claims 1, 3-6, 9, 10, and 13 under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Office Action at 4.

Without in any way conceding the propriety of that rejection and solely in an effort to advance prosecution, Applicants have canceled claims 1, 3-6, 9, 10, and 13 without prejudice herein and added new claims 40-49. New claims 40-49 are definite. Therefore, this rejection should be withdrawn.

IV. 35 U.S.C. § 102(b) Rejections

Rejection over Galvez

The Office rejected claims 15, 18, 19, and 22 under 35 U.S.C. § 102(b) as allegedly being anticipated by Galvez, C. et al. "A Revision of the Synthesis of some Polycyclic Systems Related to Benzoheteroquinolizidines" *J. Heterocyclic Chem.* (1980) 17:1355-1357 ("Galvez"). Office Action at 4-5.

Without in any way conceding the propriety of that rejection and solely in an effort to advance prosecution, Applicants have canceled claims 15, 18, 19, and 22 without prejudice herein and added new claims 40-49. New claims 40-49 are not anticipated by Galvez because none of the compounds disclosed in Galvez are encompassed within the scope of the present claims. Therefore, this rejection should be withdrawn.

Rejection over Huff

The Office rejected claims 1, 9-15, 17-19, 22, and 33 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 4,686,226 to Huff et al. ("Huff"). Office Action at 5.

Applicants disagree with this rejection. In particular, "[w]hen the compound is not specifically named, but instead it is necessary to select portions of teachings within a reference and combine them, e.g., select various substituents from a list of alternatives given for placement at specific sites on a generic chemical formula to arrive at a specific composition, anticipation can only be found if the classes of substituents are sufficiently limited or well delineated." M.P.E.P. § 2131.02 (citation omitted). In other words the genus of compounds claimed in Huff does not anticipate the genus of the present claims because one of ordinary skill in the art cannot at "at once envisage" compounds of the present claims. "One of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds included in the generic formula before any of the compounds can be 'at once envisaged.'" *Id.* (citations omitted). In other words, the genus of Huff is not sufficiently delineated to anticipate the present claims.

However, without in any way conceding the propriety of that rejection and solely in an effort to advance prosecution, Applicants have canceled claims 1, 9-15, 17-19, 22, and 33 without prejudice herein and added new claims 40-49. New claims 40-49 are not anticipated by Huff because none of the compounds encompassed within the Huff genus are encompassed within the scope of the present claims. Therefore, this rejection should be withdrawn.

V. 35 U.S.C. § 103(a) Rejection

The Office rejected claims 17 and 22 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Galvez. Office Action at 5.

Applicants respectfully disagree with this rejection. In particular, the presently pending claims do not overlap with the compounds disclosed in Galvez. As discussed above, the compounds of Galvez do not possess *gem* disubstitution in the 1- α position, whereas such *gem* disubstitution is required by in the presently pending claims. In addition, Galvez provides no reason to modify its compounds, i.e., inserting two substituents in the 1- α position and exchanging an O for an S. Even after *KSR*, to find that a new chemical compound is obvious over the prior art, the prior art must provide some reason for the requisite modification: "Thus, in cases involving new chemical compounds, it remains necessary to identify some reason that would have led a chemist to modify a known compound in a particular manner to establish *prima facie* obviousness of a new claimed compound." *Takeda Chem. Ind., Ltd. v. Alphapharm PTY., Ltd.* 492 F.3d 1350, 1357 (Fed. Cir. 2007). Accordingly, this rejection should be withdrawn.

V. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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